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ABSTRACT

A 30-item survey regarding needs in social studies instruction was administered to 151 elementary school teachers. Five statements were developed for each of six factors found in the professional literature: citizenship; issues; social sciences; skills; world; and traditional social studies. The teachers responded to each item twice: once, rating the objective as they perceived its importance in the present social studies program; and once, as they thought it should be. The two sets of data--"as-is" and "should-be"--were separately factor analyzed to determine the principle components and compare them to the original instrument design. Four strong "as-is" factors were selected to account for 42% of the total variance: (1) social studies for thinking, active, democratic world citizens; (2) social studies skills and attitudes; (3) traditional social studies; and (4) social sciences and history. Four strong factors found from the "should be" analysis accounted for 34% of that variance: the world; traditional social studies; social sciences and history; and issues, problems, and critical thinking. Suggestions for further research involve the investigation of greater numbers of factors; cluster analysis; and surveying of college social studies teachers. Descriptions of each survey item are appended. (Author/GDC)

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A SOCIAL STUDIES NEEDS ASSESSMENT INSTRUMENT: A FACTOR ANALYSIS

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A SOCIAL STUDIES NEEDS ASSESSMENT INSTRUMENT: A FACTOR ANALYSIS

One way to approach the problem of curriculum development/improvement in the social studies is through a needs assessment. The heart of this assessment would be a comprehensive statement of social studies goals which would yield the necessary data. The professional literature, however, provides few clues to where such an instrument might be located.

The Problem

It is the purpose of this paper to investigate the principle components of an original social studies needs assessment instrument. Through this analysis it is hoped that one can discover durable factors which can be useful in social studies needs assessment. Further it is hoped that information will be gained which will provide insight into continued instrument development.

Methods

Data were collected in the Spring of 1976 from 151 elementary teachers in nine elementary schools in a rather affluent suburban Cleveland school district. Like many other systems throughout the state and nation, this system for about the last ten years has been educating a student population which includes about 25 per cent minority students.

The instrument used to gather the data consisted of 30 statements of goals of social studies education. These statements were generated from a set of six factors which the researcher extrapolated from the professional literature. Five statements were developed for each of the six factors: citizenship, issues, social sciences, skills, world, and traditional social studies. Teachers were to read each item twice, once with wording which referred to an objective "As-Is" presently in the school district, and the second time as it "Should-Be." In this way they defined their perceptions

of the present social studies program and, with the second response, indicated what importance they thought that goal should have in the curriculum. There were two response columns at the right of the page, one titled "As-Is" and the other titled "Should-Be." Each column consisted of a series of Likert-type scales which ranged from Strongly Agree to Strongly Disagree. The data, treated as two separate instruments, As-Is and Should-Be, were factor analyzed to determine the principle components and to compare these with those originally designed into the instrument.

Results

As-Is Data - Eight-Factor Solution

After administering the 30-item instrument to 151 elementary teachers, the data were factor analyzed and rotated to orthogonal simple structure. Eight factors were produced with eigenvalues greater than 1.0. These factors accounted for 64 per cent of the total variance. Using .3 as a cutoff for a significant loading, it was noted that 12 variables loaded on more than one factor. Since this study sought to explore the potential factors of social studies goals, it was decided to ascertain what the substance of the emerging factors seemed to be, even though, as they now were constituted, the eight factors with their double loadings and only two or three variables on some factors were not strong enough to serve as separate subscales.

The factor loadings are presented in Table 1.

Insert Table 1 approximately here

Factor I seemed to include many items relating to 'Political, Economic, and Social Conditions;' political and economic conditions of underdeveloped nations (30), how to take effective social action (22), how to increase the supply of money (26), social conditions of major nations of the world (18), apply social principles to solve current problems (18), and to infer the

causes and effects of recession, political corruption, etc. (16). These variables all indicated a value of .5 or greater. A weaker item, 21, knowing the amendments to the Constitution, is consistent with this factor. The last four variables (24, 29, 13, 26) all load more highly on other factors.

Factor II appeared to be 'Social Studies Skills.' Items which point to this conclusion are: able to read front page of the paper (4), able to separate fact, nonfact, and opinion (17), able to form an intelligent opinion (13), to be able to read a map key (5), and to make maps (11). These first five variables are at .5 or greater. Subsequent variables (10 and 12) do not fit so neatly with the factor label while 16 and 18 are more highly loaded on other factors.

Factor III appeared to be 'Disciplined Traditional Social Studies.' Variables 4, 27, and 12 are loaded more highly on other factors.

Factor IV was most clearly social sciences and history. The first variable (15) refers to the laws of the social science, the second (3) to the structure of the social sciences, the third (9) methods of the social sciences, fourth (14) 20th century history before earlier history, and fifth, (23), apply social principles to the solution of current problems. Variables 21, 28, 6, 16, and 19 are more highly loaded on other factors while 12, as we have seen before, is loaded on Factors I, II, IV, and VIII and, thus, affords no clear thrust to this category.

Factor V consisted of only two variables. Since 1 refers to ethical conduct of public officials and 7 to reducing prejudice in oneself, it appears that this factor is appropriately labelled 'Values, Public and Personal.'

Factor VI consisted of three factors. The first two are negatively loaded; follow directions obediently (25), and specific dates in U.S.

history (26). The third variable, 29, seems to give the clue; to be able to discern cause-effect relationships (29). This factor, therefore, is labelled "Thinking Citizen.'

Factor VII appeared much like Factor VI in some ways but also points in a very different direction. All the variables are positively loaded. Thus 8, to know the causes of the Revolutionary War, 19, to know the mechanics of voting, 29 (also loaded on Factor VI), to be able to discern cause-effect relationships, and 17, to be able to distinguish fact from nonfact and opinion seem to point to this factor as being the 'Patriotic Thinking Citizen.'

Factor VIII has two rather heavily loaded variables, 20, to know how ancient civilizations contributed to our culture and 24, the major cultures of the world. These seem to allude to this factor as 'Cultures, Past and Present.'

As-Is Data - Four-Factor Solution

On the basis of the eight-factor As-Is solution, it was apparent that four of the factors were weak. It was thus determined that a four-factor solution would produce a more meaningful set of factors as far as the present instrument was concerned. This solution accounted for 42 per cent of the variance.

The factor loadings are presented in Table 2.

Insert Table 2 about here

Loaded on Factor I were 15 items, i.e., half of the items on the instrument. It, thus, did not seem too surprising that these items would span a variety of types of goals. Items 22, 16 and 10 referred to issues and current problems; items 29, 23, and 17 were concerned with critical thinking; items 18, 24, and 30 referred to the world. Looking at the data

in toto, it appeared that this factor should be labelled 'Social Studies for Thinking, Active, Democratic Citizens in the World.'

Factor II included variables of 'Skills and Attitudes.' This included items such as forming an intelligent opinion (13), fact, nonfact, and opinion (17), reading the front page of the paper (4), using a map key (5), reducing self prejudice (7), and knowing the background of minority struggles (10).

Factor III focuses on 'Traditional Social Studies.' It is noteworthy that specific dates in U.S. history is of opposite sign to the others in this factor set. Otherwise the factor includes New World explorers (2), causes of the Revolutionary War (8), and other traditional topics.

Factor IV is clearly the 'Social Sciences.' This factor is very similar to Factor IV on the eight-factor As-Is solution.

Should-Be Data - Ten-Factor Solution

Principle component analysis produced ten factors. Since the original instrument had only 30 items, it was obvious that many variables loaded on more than one factor. For the purpose of this exploratory study, however, it was decided first to examine the ten-factor solution to determine what the possible factors might be and then to ascertain what the most reasonable principle-component solution would be using these data.

The data from the ten-factor solution are presented in Table 3. This solution accounted for 65 per cent of the total variance.

Table 3 inserted approximately here

Factor I appeared to include elements of 'Critical Thinking About the World.' Two of the items, 29 and 13, focus on thinking, one called for cause-effect relationships and the other for developing an informed opinion. Items 24 and 18 referred to world cultures and social conditions. (Items 10, 20, 30, 12, 10 and 5 are heavily loaded on other factors.)

Factor II contained elements of 'World Geography'. Making maps (11), the history of major nations of the world (12), New World explorers (2), structure of the social sciences (3), and major cultures of the world (24) are the major elements of this factor. Items 3 and 24, however, are more heavily loaded on other factors while 2 is almost equally loaded on this factor and Factor IV. Thus mapping the world seems to be the focus of this factor.

The 'Social Sciences' emerge rather clearly as Factor III. Five items appear at .5 or better.

Knowing the causes of the Revolutionary War (8) how to use a map key (5), and New World explorers (2) led to the identification of 'Patriotism' as the concept of Factor IV. The negative valence of dates in U.S. history (26) appeared to be a mark against dates rather than U.S. history. This is further substantiated by item 26 loading rather heavily on Factor VII. Items 21 and 17 loaded heavily on other factors.

Factor five contained only two variables, 19 and 20; and was , thus, most difficult to identify. The two variables involved seemed to point to the factor of 'Cultural Citizenship', i.e. a voting citizen who knows traditional aspects of our culture.

Even though Factor VI contained only three variables, they are so coherent that they do give a clear picture. The factor is 'Current History'. The negative valence of 28, disciplined history before current problems is consistent with 14, twentieth century history first, and 10, background of minority struggles.

Factor VII appeared to be 'Obedient, Patriotic Citizen'. Following directions obediently (25) is clearly the leading element of this factor. Ethical/unethical conduct of public officials (10), and the contents of the Bill of Rights coupled with an opposite valence for knowing the specific dates of major events in U. S. history (26) suggested the essence of this factor.

Factor VIII contained three variables. 'Able To Read The Front Pages Of The Newspaper' (4) was the first variable with the other two being heavily loaded on factors one and three respectively. The first two together suggested that this category referred to 'Current Events'.

Factor IX's leading variable was reducing self-prejudice (7) while the background of minority struggles was second. These two suggested that the factor focused on prejudice toward minority groups. Item 17, fact/nonfact/opinion, seemed to be consistent with the concept but was more highly loaded on Factor I. Items 4 and 27 are also loaded highly on other factors.

Factor X pointed to political/economic elements (30,6,27). Item 26 is more heavily loaded on Factor IV.

While the above ten factors do give some insight into the dimensions of factors contained in the experimental instrument, there are several problems. The loadings of items on more than one factor tend to obscure the factor; the limited number of heavily loaded variables on some factors make it most difficult to accurately identify the concept factor. In addition, some factors seem to be similar to others such as I and II, IV, and V, VI and VIII. Some very important distinctions which may be useful in subsequent research, have come from this analysis. Now, however, it appears useful to look at the factors produced by another solution.

Should-Be Data-Four-Factor Solution

Factors I through IV on the ten-factor solution appeared rather strong while those from five on had only two or three variables which in some cases, were also heavily loaded on other factors. Thus a four-factor solution appeared called for and is the subject of the following analysis. The data for this analysis are presented in Table 4. This solution accounted for 34% of the variance.

Table 4 inserted approximately here

In the four-factor solution, some of the ambiguities disappear while creating yet other ones. Factor I now clearly becomes 'The World'. Items 6, 12, 18, 24, and 30 were originally designed as to fall in this category. Only item 6 is loaded on another factor.

Factor II is similar to Factor II in the ten-factor solution but more clear-cut. The 'Traditional Social Studies' element comes through in variables 2, 8, and 5. It is interesting to note that, again, item 26 is of opposite sign from the others and affirms the rejection of the dates element. Items 12 and 11 are consistent with this factor. Factor III focuses on 'Social Sciences and History'. Again the negative sign on item 26 indicates that it is not the history portion, but the dates that are incompatible with the other elements of this factor.

Factor IV narrows in on "Issues, Problems, and Critical Thinking. Items 10, 16 and 4 clearly refer to current problems, and 13, 29 and 17 refer to critical thinking. Items 7 and 1 refer to the ethics of public officials and one's own prejudice. Following directions obediently again appears but in the context of the other elements it seems to assume a less severe connotation, perhaps, merely suggesting the ability to follow directions. Items 18, 9, and 6 load more heavily on other factors.

The four factor solution produces the following factors: I. 'The World'; II. Traditional Social Studies;' III. 'Social Sciences and History;' and IV.'Issues, Problems, and Critical Thinking.'

Discussion

In discussing these findings, several questions appear to need resolution: 1. How do the findings of the As-Is eight factor and four-factor solutions compare? How can these data be used? 2. How do the Should-Be ten- and four-

factor solutions compare? What is the significance of these data? 3. How do the four-factor As-Is and Should-Be solutions compare? 4. What implications do these findings have for additional research?

As-Is Solution Comparison

The eight-factor As-Is solution produced the following factors: I. Political/Economic/Social Conditions. II. Social Studies Skills III. Disciplined Traditonal Social Studies. IV. Social Sciences and History. V. Values, Public and Personal. IV. Critical Thinking. VII. Patriotic Thinking Citizen. VIII. Cultures, Past and Present.

The four-factor As-Is solution yielded the following factors: I. Social Studies for a Thinking, Active, Citizen of a Democracy and World. II. Skills and Attitudes. III. Traditional Geography and History, and IV. Social Sciences.

Of what value is the eight-factor solution when it is acknowledged that several of the factors are weak, containing only two or three variables? In this stage of instrument development, it appears useful to identify potential factors rather than merely seeking the 'best' solution. While the eight-factor solution must be tentative, the factors generated do make sense in terms of the field of social studies. For example, the differentiation of Factors I and IV seem to indicate that teachers do not see political, economic, and social conditions as part of the social sciences. Factors II and IV seem to clearly separate lower level skills from critical thinking. Factors III and V seem to point to different goal functions. The eight-factor solution, therefore, appears to be a useful tool in suggesting areas which might be included in the development of a new instrument.

The four-factor solution has some problems due to the muddied first factor and the low total variance accounted for by the four factors (42%). It does, however, probably offer the most meaningful interpretation of the

present instrument. As an interesting sidelight, the investigator went back to the original data to get the means for each item which loaded most heavily on a factor. The grand means for the four factors were: I; 2.92 II. 3.45 III. 3.18 IV. 2.52. It would have been reasonable to have predicted that Factor III, 'Traditional Social Studies', would have had the highest mean. In the case of the specific school system employed in this study, however, and their last ten years of integration efforts, it is not too surprising to find Factor II, 'Skills and Attitudes' (which refers to minority struggles) in first rank. Traditional Geography trailed by Social Sciences was predictable for the last two positions. These factors, therefore, serving as test subscales, do appear to be reasonable.

Should-Be Solution Comparisons

The ten-factor Should-Be solution is obviously tenuous given the 30-item instrument and several factors which contained only two or three variables. The factor constructs, however, do appear reasonable. The ten factors were: 1. Critical Thinking About the World. II. World Geography. III. Social Sciences. IV. Patriotism V. Cultural Citizenship. VI Current History. VII. Obedient, Patriotic Citizen. VIII. Current Events. IX. Prejudice Toward Minorities. X. Political/Economic Factors. The usefulness of the solution, like that of the eight factor As-Is, appeared to be in suggesting concepts which might be included in the development of future needs assessment instruments.

The four-factor solution yielded: I. The World. II. Traditional Social Studies. III. Social Sciences and History. and IV. Issues,Problems, and Critical Thinking. In light of the As-Is analysis by means, a similar procedure was employed on the should-be data. These means were: I. 3.94. II. 3.77. III. 3.53. and IV. 4.10. The range among means was .57 which was not quite half that of the As-Is means. These data, while not shedding

much light on further instrument development, do indicate that the four-factor Should-Be solution is useful. For example, the teachers in this school system indicated a need for more attention to issues, problems, and opportunities for critical thinking and greater knowledge of the world while traditional social studies is relatively de-emphasized. Again it is noteworthy that social sciences come up last.

Even though the Should Be four-factor solution seems useful, one must be cautioned by its failure to account for more than 35% of the variance. It thus seems that further instrument development should build upon the ten-factor model.

As-Is, Should-Be Four-Factor Comparisons

Five variables emerged to form Should-Be Factor (World) almost all of which were also found in As-Is Factor I. This factor, therefore, appeared rather stable.

Five of the six variables in Should-Be Factor II are also found in As-Is Factor III. Traditional Social Studies also appears to be a rather stable factor.

Six of the ten variables on Should-Be Factor III (Social Sciences) are also found in the parallel As-Is factor, Factor IV. The other four variables were heavily loaded (but not most heavily loaded) in the social science category. This factor appears to be the most stable of all.

Should-Be Factor IV (Issues and Critical Thinking) contained six variables which are found in As-Is Factor I (mixed factor) and two on Factor II (Skills and Attitudes). Two variables, 1 and 25 did not appear on the As-Is factor loadings. These data seem to point to the validity of the Should-Be scale but suggest the need for additional development which might separate the two factors which now seem to be contained in the same set.

Conclusions

From the previous analysis, it appears that the Should-Be scale contains four rather cohesive and durable factors which are appropriately scattered on an As-Is administration. Five of the six subscales originally designed into the instrument were supported by the analysis with two of them being collapsed into one scale. The citizenship scale was largely integrated into Should-Be Factor IV, Issues and Critical Thinking. The four-factor Should-Be solution appears much more defensible than the four-factor As-Is. One can speculate that the As-Is may represent some influences other than underlying constructs, such as, requirements imposed on the social studies curriculum by the State, textbooks, available materials, and so on, while the Should-Be frees one of these restrictions. Thus, these data seem to indicate the appropriateness of using the four-factor Should-Be solution in interpreting data generated from the use of the present instrument.

One, however, still must ask why the factors generated by the As-Is and Should-Be eight-and ten-factor solutions are different. Should they not be very similar? In many respects they are, but the presence of only a few items loaded on some of the factors make this question most difficult to answer. One of the possibilities which must be considered, is that perhaps another population might prove more appropriate for this study. Elementary teachers may not adequately reflect the underlying structure of social studies education.

Some possibilities for further instrument development might include administering the present instrument to higher education social studies professors to compare the emerging structure with that of this study. Another might be to submit the items to a group of 'experts' to determine the constructs. And finally, another approach might be cluster analysis which would yield more clearly defined factors.

TABLE 1

Factor Analysis of As-Is Items (Eight-Factor Solution)

Item No.	Synopsized Item Description	Factor loadings I	II	III	IV	V	VI	VII	VIII
1	Ethical/unethical public officials	.23	-.07	.16	.17	.17	-.02	-.07	-.04
2	New World explorers	-.04	-.19	.58	.11	.22	-.06	.14	-.35
3	Structure of the social sciences	.02	-.03	.18	.73	.16	-.06	-.05	-.13
4	Able to read front pages of newspaper	.04	-.74	.37	.07	.07	-.01	.14	.14
5	Able to read map key	-.01	-.58	.13	.15	.11	-.01	.20	-.16
6	Major world political/econ. systems	.24	-.21	.58	.39	.10	.03	.15	.18
7	Reduce self prejudice	.05	-.29	-.08	.24	.42	.36	.18	-.17
8	Causes of Revolutionary War	.01	-.15	.27	-.05	.24	.06	.66	-.26
9	Methods of social scientists	.04	-.22	.15	.67	.14	.17	.04	.01
10	Background of minority struggles	.21	-.42	.12	.09	.02	.35	.15	-.19
11	Making maps	.05	-.51	.29	.08	-.09	.30	-.18	-.47
12	History of major nations of world	.15	-.41	.36	.43	-.16	.14	-.17	-.39
13	Form intelligent opinions on currt. probs.	.36	-.70	-.15	.20	.17	.26	.10	-.08
14	20th Century history before early history	-.04	-.01	-.12	.64	-.28	.03	.21	.03
15	Laws of the social sciences	.21	-.04	.10	.79	-.05	.15	-.17	-.06
16	Cause/effect of recession, pol. corrupt'n.	.52	-.33	.13	.40	.20	.16	.00	.00
17	Able to discern fact from nonfact, opinion	.16	-.61	-.10	.23	.00	.17	.31	-.12
18	Social conditions of major nations of world	.55	-.31	.08	.26	-.18	.04	.19	-.15
19	Mechanics of voting	.13	-.10	.15	.32	-.29	.15	.58	.08
20	Elements of our culture from ancients	.26	-.07	.08	.14	-.08	.07	.26	-.74
21	Amendments to Constitution	.45	.00	.25	.45	-.02	.15	.10	-.18
22	How to take effective social action	.69	-.13	.03	.26	-.07	.07	.16	-.19
23	How to apply soc'l princs. to prob. slvg.	.53	-.11	.04	.54	.18	.14	.16	.00
24	Major cultures of the world	.41	-.29	.23	.18	.05	-.12	.23	-.55
25	Follow directions obediently	-.04	.08	-.03	-.11	.00	-.85	.02	.03
26	Specific dates in U.S. history	-.30	.03	-.58	-.07	.08	-.48	-.20	.18
27	How government increases supply of money	.62	-.19	.37	.19	.00	.12	.03	.16
28	Disciplined study of history before cur't probs.	.13	.13	.50	.45	.07	.25	.02	-.21
29	How to infer cause and effect	.36	-.24	-.06	.17	.08	.45	.45	-.16
30	Pol./econ. factor of underdevld. nations	.77	-.13	.19	.17	.00	.07	-.13	-.09

TABLE 2

Factor Analysis of As-Is Items (Four-Factor Solution)

Item No.	Synopsized Item Description	Factor Loadings I	II	III	IV
1	Ethical/unethical public officials	.04	-.21	-.17	-.29
2	New World explorers	-.02	-.23	-.65	-.11
3	Structure of the social sciences	.03	-.08	.22	.64
4	Able to read front pages of newspaper	.06	-.60	-.24	-.13
5	Able to read map key	.12	-.49	-.22	-.08
6	Major world political/econ. systems	.19	-.21	-.35	-.47
7	Reduce self prejudice	.19	-.44	-.11	-.18
8	Causes of Revolutionary War	.18	-.34	-.37	.12
9	Methods of social scientists	.20	-.28	-.13	-.62
10	Background of minority struggles	.34	-.41	-.21	-.09
11	Making maps	.21	-.39	-.42	-.07
12	History of major nations of world	.26	-.28	-.46	-.37
13	Form intelligent opinions on currt. probs.	.43	-.61	.04	-.19
14	20th Century history before early history	.16	-.03	.03	-.36
15	Laws of the social sciences	.24	.02	.10	-.74
16	Cause/effect of recession, pol. corrupt'n.	.44	-.32	-.13	-.45
17	Able to discern fact from nonfact, opinion	.35	-.60	-.06	-.11
18	Social conditions of major nations of world	.56	-.21	-.17	-.23
19	Mechanics of voting	.33	-.17	-.12	-.17
20	Elements of our culture from ancients	.44	-.12	-.46	.03
21	Amendments to Constitution	.47	-.03	-.29	-.43
22	How to take effective social action	.67	-.08	-.14	-.25
23	How to apply soc'l princs. to prob. slvg.	.50	-.18	-.06	-.53
24	Major cultures of the world	.46	-.24	-.49	-.09
25	Follow directions obediently	-.25	.22	.05	.12
26	Specific dates in U.S. history	-.42	.12	.50	.14
27	How government increases supply of money	.46	-.13	-.19	-.34
28	Disciplined study of history before cur't probs.	.19	.01	-.45	-.44
29	How to infer cause and effect	.57	-.40	-.09	-.08
30	Pol./econ. factor of underdevld. nations	.57	-.03	-.18	-.31

TABLE 3

Factor Analysis of Should-Be Items (Ten-Factor Solution)

Item No.	Synopsized Item Description	Factor Loadings I	II	III	IV	V	VI	VII	VIII	IX	X
1	Ethical/unethical public officials	.33	-.11	-.04	.03	-.13	-.09	-.45	-.24	.07	-.14
2	New World explorers	.04	.52	.01	.54	-.12	-.10	-.01	.09	.14	-.09
3	Structure of the social sciences	-.12	.42	-.52	-.03	-.11	-.06	-.06	-.34	.10	-.09
4	Able to read front pages of newspaper	.17	.18	-.04	.00	.03	-.20	-.17	-.65	.36	-.21
5	Able to read map key	.26	.17	.15	.58	.07	.02	-.22	-.24	-.10	-.29
6	Major world political/econ. systems	.11	.07	-.40	.13	.06	.02	-.09	-.28	.08	-.65
7	Reduce self prejudice	.13	-.01	-.04	-.09	.06	.01	-.14	.01	.80	.01
8	Causes of Revolutionary War	.07	.02	.06	.76	.06	.09	.07	-.07	.06	.02
9	Methods of social scientists	-.10	.08	-.48	.26	-.04	.16	-.20	-.12	.27	-.26
10	Background of minority struggles	.42	-.05	-.01	.10	-.01	.48	.01	-.12	.50	-.24
11	Making maps	.08	.76	-.02	.09	-.12	.03	.01	-.07	.08	.13
12	History of major nations of world	.34	.59	-.31	.20	.20	-.08	.08	-.10	.01	-.26
13	Form intelligent opinions on currt. probs.	.50	.03	-.17	-.09	.05	.25	-.17	-.42	-.07	-.20
14	20th Century history before early history	-.05	-.14	-.30	.12	.17	.63	.10	-.14	.03	-.17
15	Laws of the social sciences	.08	.10	.70	.20	.17	-.07	.19	-.03	.03	-.10
16	Cause/effect of recession, pol. corrupt'n.	.46	-.24	-.48	.03	.16	.10	-.12	.17	.25	-.10
17	Able to discern fact from nonfact, opinion	.48	-.24	-.02	.33	-.02	-.12	.10	-.24	.38	.21
18	Social conditions of major nations of world	.57	.23	-.32	.06	.10	.03	-.17	.19	.17	-.28
19	Mechanics of voting	-.08	-.03	.19	.18	-.77	.00	.08	-.20	-.04	-.14
20	Elements of our culture from ancients	.38	.28	-.13	.18	-.55	.03	.02	.29	.01	-.20
21	Amendments to Constitution	-.01	.09	-.63	.33	.00	-.20	-.38	.09	.13	-.05
22	How to take effective social action	.23	-.15	-.57	-.07	-.29	-.04	-.23	-.05	.25	.02
23	How to apply soc'l princs. to prob. slvg.	.14	-.17	-.59	-.16	-.23	.01	.13	-.06	-.07	-.14
24	Major cultures of the world	.64	.33	-.16	.06	-.19	-.12	-.08	.01	-.05	-.05
25	Follow directions obediently	.03	.00	-.04	.05	.03	.10	-.85	.04	.09	-.03
26	Specific dates in U.S. history	-.01	-.26	.06	-.44	-.11	.19	-.31	-.25	-.22	.34
27	How government increases supply of money	-.02	-.18	-.20	.04	-.25	-.25	.02	-.31	.34	-.58
28	Disciplined study of history before cur't probs.	.03	.04	-.25	.17	.12	-.68	.23	-.10	-.13	-.25
29	How to infer cause and effect	.67	-.12	-.24	.16	-.07	-.10	.15	.02	.11	-.07
30	Pol./econ. factor of underdevld. nations	.38	.22	-.22	-.11	-.02	-.04	-.16	.10	.01	-.69

TABLE 4

Factor Analysis of Should Be Items (Four-Factor Solution)

Item No.	Synopsized Item Description	Factor Loadings I	II	III	IV
1	Ethical/unethical public officials	.18	-.02	.08	.42
2	New World explorers	.20	-.66	.19	-.09
3	Structure of the social sciences	.04	-.09	.54	.01
4	Able to read front pages of newspaper	.08	-.18	.25	.38
5	Able to read map key	.17	-.52	.08	.24
6	Major world political/econ. systems	.07	-.13	.62	.34
7	Reduce self prejudice	-.01	-.07	.02	.44
8	Causes of Revolutionary War	-.04	-.54	.03	.17
9	Methods of social scientists	-.10	-.18	.47	.34
10	Background of minority struggles	.13	-.15	.03	.63
11	Making maps	.29	-.37	.10	-.14
12	History of major nations of world	.42	-.37	.47	.03
13	Form intelligent opinions on currt. probs.	.27	.06	.16	.46
14	20th Century history before early history	-.15	.05	.15	.25
15	Laws of the social sciences	.05	-.03	.62	.04
16	Cause/effect of recession, pol. corrupt'n.	.13	.13	.34	.62
17	Able to discern fact from nonfact, opinion	.10	-.15	.02	.40
18	Social conditions of major nations of world	.52	-.12	.31	.37
19	Mechanics of voting	.03	-.04	.27	.02
20	Elements of our culture from ancients	.47	-.20	.23	.05
21	Amendments to Constitution	.06	-.16	.51	.22
22	How to take effective social action	.13	.20	.38	.41
23	How to apply soc'l princs. to prob. slvg.	.08	.33	.49	.13
24	Major cultures of the world	.66	-.13	.19	.16
25	Follow directions obediently	.07	-.05	-.08	.40
26	Specific dates in U.S. history	-.08	.45	-.32	.13
27	How government increases supply of money	-.01	-.03	.45	.24
28	Disciplined study of history before cur't probs.	.08	-.01	.46	-.22
29	How to infer cause and effect	.41	-.03	.20	.45
30	Pol./econ. factor of underdevld. nations	.45	-.04	.42	.24